

**Method And Apparatus for Companding Pixel Data
in a Digital Pixel Sensor**

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ABSTRACT OF THE DISCLOSURE

An image sensor includes a sensor array, a companding circuit and a data memory. The sensor array includes a two-
10 dimensional array of pixel elements and outputs digital signals as k-bit pixel data representing an image of a scene. The companding circuit is operable to compand the k-bit pixel data into h bits, h being less than k. The data memory is in communication with the sensor array for storing
15 the h-bit pixel data for each of the pixel elements. In one embodiment, the companding circuit applies a transfer function which is linear for low intensity values and logarithm for high intensity values.

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